

BITS & PIECES

QUIKDATA ANNOUNCES NEW SYSTEMS

Quikdata, Inc., is pleased to introduce you to our new line of PC/XT/AT compatible computers. The base system is assembled from high quality clone parts by a company in California we have worked with for over twelve years. We introduce this line to you as very cost effective alternative since Zenith does not want mail order anymore. We are now able to give you a high quality computer at a bargain price. We are presently stocking three models. We will add more as the need presents itself. Of course, full service and support on this line continues our trademark of tradition.

QD88/12

Our QD88/12 is one of the fastest PC/XT computers in its class. It will make a good starter system or a workhorse for those who need power and speed, but do not want to go up to the 286 or 386 line. The QD88 is a professional computer system which offers total IBM PC/XT compatibility. Each system includes a one year limited warranty on both parts and labor. We are selling bare systems as the base unit and configuring them anyway a customer desires.

QD88/12 FEATURES:

- 12 Mhz V20 CPU with 4.77/12 Mhz clock
- 640K SYSTEM STANDARD USING 150ns DRAMS
- EXPANDABLE TO 1MB ON MOTHERBOARD
- SOCKET FOR INTEL 8087 MATH CO-PROCESSOR
- CLOCK/CALENDAR WITH BATTERY BACKUP
- FULL SIZE 4 BAY CABINET WITH TURBO/RESET BUTTON AND KEYLOCK
- 150 WATT SWITCHING POWER SUPPLY, FCC & UL APPROVED
- HIGH QUALITY 101 KEY TACTILE KEYBOARD
- AWARD BIOS (v3.05) WITH BUILT-IN DISK CACHING OPTION
- 8 CARD EXPANSION SLOTS
- TEAC 360K FLOPPY DRIVE WITH FLOPPY CONTROLLER
- PARALLEL PORT, SERIAL PORT, GAME PORT

The price of this base system is \$495.00. All you need to get going is a monitor, and our TTL monochrome monitors are \$95. Add any options you wish and we will install them and have your unit configured the way you want! No additional charge for installation and setup. Refer to our current catalog for other items such as hard disks, other video cards, modems, etc.

QD286/12

Our QD286/12 is a professional computer system which offers total IBM AT compatibility. Each system includes a one year limited warranty on both parts and labor. We are selling bare systems as the base unit and configuring them anyway a customer desires.

QD286/12 FEATURES:

- 80286 CPU 6/12 Mhz
- 0/1 WAIT STATE HARDWARE SWITCHABLE

- 8MHZ I/O BUS
- 1 MEG SYSTEM STANDARD, EXPANDABLE TO 4 MEGS ON MOTHERBOARD
- USES 100NS DRAMS OR SIPS
- 80287 CO-PROCESSOR SOCKET
- FULL SIZE 5 BAY CABINET WITH TURBO/RESET BUTTON AND KEYLOCK
- 200 WATT SWITCHING POWER SUPPLY, FCC & UL APPROVED
- HIGH QUALITY 101 KEY TACTILE KEYBOARD
- AWARD GOLD BIOS (v3.05) WITH BUILT-IN DISK CACHING OPTION
- EMS DRIVER FOR EXPANDED MEMORY
- 8 CARD EXPANSION SLOTS; 2-8 BIT 6-16 BIT
- NOVELL, XENIX AND UNIX COMPATIBLE
- BENCHMARKS: LANDMARK 16.0, NORTON SI 14.0

The price of this base system is \$649.00. Add any options you wish and we will install them and have your unit configured the way you want! No additional charge for installation and setup. Select other options from our catalog such as serial and parallel ports, floppy/HD controller, hard drives, video cards, modems, etc.

QD386/25

Our QD386/16 is a professional computer system which offers total IBM AT compatibility. Each system includes a one year limited warranty on both parts and labor. We are selling bare systems as the base unit and configuring them anyway a customer desires.

QD386/25 FEATURES:

- 80386 CPU 8/25 Mhz CPU
- I/O PROGRAMMABLE BUS, 6/8/10 Mhz
- 0/1 WAIT STATE HARDWARE SWITCHABLE
- 1 MEG SYSTEM STANDARD USING 80ns SIPS
- EXPANDABLE TO 16 MEGS ON MOTHERBOARD USING 256K OR 1MB SIPS WITH 1, 2, 3, 8 10, 16 MEGS
- SOCKET FOR INTEL 80387 OR WEITEK 3167 MATH CO-PROCESSOR
- AMI BIOS WITH BUILT-IN SETUP AND DIAGNOSTICS
- C & T NEAT CHIP SET
- LONG LIFE ON-BOARD BATTERY
- FULL SIZE 5 BAY CABINET WITH TURBO LED, RESET BUTTON AND KEYLOCK
- 200 WATT SWITCHING POWER SUPPLY, FCC & UL APPROVED
- HIGH QUALITY 101 KEY TACTILE KEYBOARD
- AWARD BIOS (v3.05) WITH BUILT-IN DISK CACHING OPTION
- 8 CARD EXPANSION SLOTS; 3-8 BIT, 5-16 BIT
- MSDOS, NOVELL, XENIX AND UNIX COMPATIBLE
- BENCHMARKS: LANDMARK 32.0, NORTON SI 26

Base system price is \$1295. Add any options you wish serial and parallel ports, floppy/HD controller, floppy disk drives, hard disk drives, modems, co-processor, extra RAM, etc., and we will install them and have your unit configured the way you want! No additional charge for installation and setup.

ZDS CUTS LAPTOP PRICES, BOOSTS MEMORY

From a May 9, 1990 ZDS/BULL News Release: Zenith Data Systems (ZDS) today announced new system prices that further position its laptop personal computers (PCs) as performance

leaders that offer greater value. The company also is increasing memory on selected desktop systems to prepare customers for more memory-intensive computing environments, such as graphical user interfaces.

In a move designed to establish the SupersPort 386SX as the volume leader at the high end of the laptop market, ZDS reduced the prices of the 40-megabyte (MB) and 100MB models to \$5,499 and \$6,499, from \$5,999 and \$6,699, respectively.

"Our high-powered SX laptops are now priced with some competitors' 286 systems, making the buyers decision an easy one," said John P. Frank, ZDS president and chief executive officer.

To reinforce its position as a performance leader now offering greater value in the laptop market, ZDS announced the following price reductions on its SupersPort 286 line. The SupersPort 286e Model 40, which has VGA video, is now \$4,999, down from \$5,499; the Model 20 is now \$4,699, down from \$4,999. The SupersPort 286 Model 40, which has CGA video, is now \$3,999, down from \$4,499; the Model 20 is now \$3,699, down from \$3,999.

"To help our resellers take maximum advantage of the emerging notebook market, we're offering aggressive discounts on the MinisPort that will enable our dealers to offer extremely attractive prices on these sub-six-pound systems," Frank said. "We've made it possible to buy a MinisPort with one megabyte of memory for about \$1,000."

To support the pricing actions on its portables, ZDS is launching a multimillion-dollar print and broadcast advertising campaign in selected major markets, which will begin later this month.

In addition, ZDS has reduced the suggested retail prices of selected accessories and add-on memory for all portable PCs.

Desktop Memory Boosted

To prepare its systems for more memory-intensive operating environments, such as graphical user interfaces, ZDS is now bundling an additional 2MB of memory with its Z-386/25 and Z-386/33 PCs, which brings their total standard memory to 4MB.

ZDS recently lowered the suggested retail prices of its add-on memory to \$499 from \$699 for 1MB. A 2MB memory chip is now \$999 and a 4MB chip is now \$1,999, down from \$1,199 and \$2,399, respectively.

ZDS also announced that it will continue its promotional bundle on Flat Technology Monitors when purchased with a ZDS desktop system, "to help our customers best embrace graphical computing environments," Frank said.

MEDIA CONVERSIONS AND MORE

Have you asked any of these questions? "How can I move data from my old computer to my new computer?" "Who can help me get my mailing lists in order?" "Can I get existing drawings into my new CAD program?" "Do you know of a computer service bureau?" "Is there a way to make working with computers easier?"

MEDIA CONVERSION PROVIDES -

Diskette and magnetic tape conversion to and from more than 1,000 incompatible computer systems; Direct conversion to many popular types of PC software; Text, graphics, and CAD scanning with high accuracy guarantees; Desktop publishing services; Mailing and database services; Key entry, disk duplication, and data recovery services; **Free trials** are available for both scanning and conversions.

DATA CONVERSION

Diskette Conversion - In most cases, the special format codes are also transferred to the new format. For instance, maybe you have a Macintosh or even an NBI or Wang and you want the information on an IBM PC in WordPerfect format. This is a simple task for our skilled staff of computer experts.

Magnetic Tape - Let us transfer information to or from your 9 Track tape. 800 bpi to 6250 bpi is acceptable. Many cartridge formats can also be converted.

DATA ENTRY - Service available to key in data for you.

Text Scanning - Today's volumes of hard copy can be converted into computer-readable form quickly, accurately and inexpensively because of exciting advances in intelligent scanning recognition. Media Conversion Corp. owns the most sophisticated scanning equipment available in the field today. We can scan documents such as student and employee records, legal descriptions and documents, mailing lists, purchasing department specs and records, photocopies, manuals and reports, books magazines, catalogs, contracts, correspondence and a wide array of other printed pieces.

Bar Code Conversion - Price lists, inventory lists...can be converted to bar code. When you supply us with the list, we provide for you a printed bar code for each item listed.

DUPLICATION

Diskette Duplication - We are able to duplicate your diskettes literally overnight. Quantities from fifty to thousands are not a problem to our tireless staff. Sleeves, labels, diskettes and mailing jackets are all available at competitive rates.

Laser Printing - Whether you send us a diskette or hard copy, we can provide you with high resolution copies. Fast turn time of high volume is not a problem.

Typesetting - Send your diskette, tape or hard copy to us. We will return it to you precisely to your specifications.

With over 7 years in the data conversion industry, Media Conversion knows how to make your job easier. I look forward to hearing from you. Mark Higgins, Senior Sales Executive/ Media Conversion Corp./ 800 Roosevelt Rd./ Building D/Suite 106/ Glen Ellyn, IL 60137/ (708) 858-4566.

ANAPRO FEEDBACK

Henry, when I used the words "get even" I did not mean to imply that you had any such inclinations, although you would be justified having them. The impression came to me from the tone of several letters from your readers, and it was to them that I was directing my comments.

In any case, I received a letter from John Davis providing me with a copy of his comment to Zenith. Well, that did it. I decided to write one of my own for what it may be worth. The text of my letter is included herein. You are welcome to publish it if you wish.

This month I have a few observations on programmers in the mainframe environment. These are based on my observations now that I am working as a programmer for the county. Seems that there is a vast difference in perspective between the "old league" and the new breed of "PC programmers" (hackers). By PC, I am including our H8 and H89 friends of course!

For a while, I had a hard time understanding the difference in views between the two "grades" of programmers. Most professional programmers have a poor (if any) understanding of the PC world. The reverse is also true. Many (if not most) PC

world programmers/hackers seem to feel that the computer world is theirs. It seems to stem from the perception that all computers are like the micros which we have (PCs). Mainframes are viewed as just larger, more powerful versions. The reality is something a bit different.

To reconcile the differences, we must have some background about the two types of computers. A micro is a machine serving one user. If something goes wrong, for example, you may press shift reset or control alternate delete. Or as a last resort, you may even reach for the off switch! You cannot do this in a mainframe (or mini) environment. If you did, you would have a very large number of other users ready to hang you by your toes (or even worse). Welcome to the world of multi-user computing.

When a number of different users of micros need to share a common database, a Local Area Network (LAN) is now utilized. This is usually implemented with one computer acting as a "fileserver" to dispatch program code and data to various other computers tied to the network. The arrangement allows many users to work on the same database but still retain "real time" operation on their own keyboard. This means that if a key is pressed on the keyboard, the program which is running will respond as required.

The situation is quite different in the multi-user world. Instead of having several computers sharing a database, there is ONE computer timesharing itself between a number of terminals. Imagine several H19 terminals tied to a single H89 CPU board. It is then the job of the operating system (OS) to do the timeshare of CPU resources. This was done by MP/M (a multi-user version of CP/M). As long as the OS can serve each user in a timely manner, all is ok. However, when a large number of users are involved, the problem is a bit difficult to solve. For example, in the IBM 3090 environment where I am presently working, there are hundreds of users running many different application programs.

The computer hardware at San Luis Obispo County is near state of the art high speed CPU with RAM disks (called solid state DASDI) and GIGA-Byte disk storage. On the software side, however, we are running the very latest versions of the vintage 1968 operating system which was in use at UCLA so many years ago when I attended there. If you remember the old IBM punch card with its 80 columns and can picture that mode of input translated to the CRT screen, you can then start to visualize the state of the IBM mainframe environment. The reason for this is that the old system was reliable, although unimpressive by today's standards of performance. All operations are performed in a BATCH mode. This means that the computer is not truly timeshared among the users, but rather processes submitted requests in the order received. When a user presses a key on the terminal, nothing happens till the ENTER key is pressed. When ENTER is pressed, then the whole screen of information is sent to the CPU. The computer then does the appropriate work and sends back a screen of info. You cannot have a space invaders, pull down menus or even "press any key to continue" without ending each command with the ENTER key. In fact, on the IBM terminal, there is a separate carriage return key which is different from the ENTER key. It can be very confusing to someone used to a PC environment.

At the present time there are several changes in the works to change the situation for multi-user systems. IBM is visualizing a distributed computing environment where PCs are used in place of terminals and most computing will be done in REAL TIME on the PC. The 3090 mainframe will be a high speed database server to provide the user station with the requested data. An alternate approach is to develop a REAL TIME version of UNIX. There are other operating system than UNIX out there trying to do the same thing, but UNIX seems to be the only common thread among otherwise dissimilar hardware platforms. Remember the situation of Commodore, IBM, Apple, Atari, H8/HDOS and H89 CP/M which could not share software? This is the situation if UNIX is not used on the multi-user systems. UNIX for real time

applications still seems to be in the future, but the future also seems to be coming closer into view. I will try to keep you posted.

I have expressed my perceptions and opinions here. If any of you readers have differing views, I am sure that Henry will allow space for a rebuttal.

Peter Shkabara/8895 Pino Solo Ave/Atascadero, CA 93422/(805) 466-4284.

Text of letter to Zenith follows:

Dear Mr. Frank,

I am among the many old time Zenith computer users who started off with a Heath H89 back in the primitive days back in 1980! Although I have not been a big buyer myself, I HAVE been responsible for the purchases of at least 15 Zenith computers as a direct result of my recommendations. It is certain that the same story can be retold by many others such as I who were part of the Huggies.

It is therefore, with great dismay that I have learned of the decision by Zenith to abandon its network of mail order (as well as other smaller) dealers. An especially poor decision was to cut off Quikdata of Sheboygan, WI since they have probably helped to build your earlier business by a noticeable amount through a great deal of good will and its widely read newsletter.

I will not purport to tell you that I know the nature of your business better than you do. Nor do I believe that Zenith will not survive without the support of its Huggies. However, it does seem that those computer buyers who are not going for price alone are going for brand name. It may be unfortunate, but that brand is spelled IBM. A loyal group of dedicated (fanatic?) users are a free problem solving network and a source of free advertising through the process of recommendations. With the policies which Zenith has been adopting over the past several years, you are giving up this base of loyalty.

Very truly yours,

Peter Shkabara, PE, President

READER H/Z EXPERIENCE & FEEDBACK

Ellis Benham writes: I subscribed to your newsletter in '86, but dropped it and about 3/4 of my other computer publications when I started seriously trying to finish grad school. Unfortunately, I didn't drop the other Zenith-related newsletter. I lost the price of most of a year's subscription to both of their publications when they folded. I'm still somewhat disgusted that they didn't at least have the decency to send a postcard to their subscribers and say "We're sorry".

You'll probably be better off in the long run not being a Zenith dealer. I've always thought they treated their dealers quite poorly. I like Heath in the pre-Zenith days. They were always helpful when I called in with problems concerning their equipment. Replacement parts were expensive, but you could get them, at least. Things have gone down hill ever since Zenith bought them. They have a few good people in Heath now, but their numbers have been seriously diluted by Zenith's clock-punchers who don't care in the least if customers ever get their equipment working again.

I'm a Z-100 person (have 7, 4 in use at present), so I depend rather heavily on Paul Herman at present. I bought my first Z-100 in '83, and ran into Zenith policy-related problems in '84. The motherboard went bad 88 days into the 90 day warranty, and Zenith would not fix it. I went through the dealer (no knowledge of computers, less interest), the local Heath store (you didn't buy it here), and every level of Zenith administration I could get an ad-

dress for (up to the company president). I never got a reply from a single person in Zenith management. I finally had to pay a Heath store \$600 for a new motherboard. I didn't find out until two years later about the return-to-Benton Harbor-for-repair policy that was in place when my board failed. That would have cost \$85 plus parts, I believe.

At the end of '89, I bought a Zenith 386/33 on educational discount just before I left grad school. I haven't decided whether that was a mistake or not. I knew I could get similar performance for less, but I've always liked some Zenith features like the monitor ROM. Since the 386 isn't a backplane type system, upgrades are severely limited, though. I've found 3 different stories in Zenith publications on memory upgrades, and have no idea if any are right. It appears to take 1mb and 4mb SIMMs, but not 2mb. Four mb SIMMs are too expensive to buy now, and Zenith has put out conflicting claims on whether they must start at a 4mb boundary or not. I can't find out whether the 1mb units are a special or standard SIMM. The ROM doesn't allow memory setup giving more than 256 KB or EMS. Mine came without the DOS utility now shipping with the new units to allow configuring extended as expanded. Then there is that @*&\$#! ESDI and floppy controller. I spent two days trying to get another floppy to run on the thing. Tried 360KB and 1.2 mb 5.25 drives, and a 720KB 3.5 drive. I finally stumbled onto something (disk change drive configuration for line 34) that let me hook the cable to only one drive at a time and get it to run. The problem is the line 34 ready signal, of course. Apparently the controller wants line 34 high all the time, instead of standard ready where it drops low after two index pulses. When I finally got Zenith tech support after about a week, the guy said to put a piece of tape over the line 34 connector on the drive before plugging in the cable. That is a sorry kludge on a \$6000 (discount price) computer. The guy said all AT class machines were that way, but I don't recall hearing about it once in the last 5 years. He may be right, but I wonder if it isn't another "Zenith-only" problem.

I'm already resigned to buying a Compaticard controller to get enough floppies on that thing to do me some good. I infer from a borrowed April H-Scoop that the Compaticard IV is the most likely to function. (I've had 4 floppies (2 1.2 mb and 2 360 KB) running on a standard Z-100 controller for years. The 386 controller certainly doesn't represent progress in that area.) I hope the back issues shed some light on the DOS 3.3+ file changes on your bulletin board, and the problems fixed by them. I've never bought a modem, since I've never lived where it was not a long distance call to any network access number. I may check later to see if you'll send a disk (for some fee) with the changes for the DOS files, if it looks like they'll solve some of my problems.

I have the tech manuals for the 386, and have found them relatively worthless. In contrast, my Z-100 tech (well worn) and BIOS sources have helped me in virtually every situation where I've used them. Ellis Benham/ 4521 L St/ Lincoln, NE 68510-1837

SOFTWARE TOOLWORKS CLIMBING

Remember The Software Toolworks? You 8-biters certainly do. It started with Walt Bilofsky working out of his garage programming some really neat and good, yet low-cost affordable software for the H/Z H8 and H89 computers. He then branched to other computers and finally moved out of his garage to an office building and traded his jeans for a suit. He later went public.

From the April 15, 1990 PRIVILEGED BREAKTHROUGH information, the WALL STREET section, **SOFTWARE TOOLWORKS PLAYS TO WIN:** The Software Toolworks, a software and marketing concern, is one of the most rapidly growing and profitable companies in the software industry today. Software Toolworks has aggressively targeted the software-entertainment business for home computers with strong steady sellers such as Chessmaster and Hunt for Red October and

Nintendo games. And it is grabbing market share of educational videos. Software Toolworks has also made a deal with Headstart Computer to publish and market the software for Headstart's new, very affordable personal computers. Larger profit margins: Economies of scale have started to kick in as Toolworks produces more products, which means larger profit margins and revenues. And: Toolworks just acquired Mindscape, an entertainment-software publisher that has some Nintendo products under license. Mindscape also has a valuable distribution arrangement in Europe. Toolworks can sell Mindscape's products through the formidable Toolworks distribution system in the US, and use Mindscape's European connections for its own products. Hot, hot, hot: Toolworks has a major new product due out this May, Days of Thunder, based on the soon-to-be-released movie starring Tom Cruise. Trade sources say this product will sell two million units in its first 12 months. Pepsi already paid a hefty fee to have its logo appear in the game. Plus, Software Toolworks has several excellent new products in the pipeline, which should sustain healthy growth. I see this company's sales doubling next year, and its profit margins improving significantly. * Only followed by two Wall Street firms, its stock has largely been ignored..."

MISCELLANEOUS BITS

* **Strange things happening at Heath.** I got overloaded this month on computer servicing for some odd reason. I figured I'd send a few to Heath's service center to have them repaired. Didn't believe it, but they told me **they are not accepting computers for repair at this time. I'd have to be referred to my local service center!** Hey, that's me! Thank's guys. Not many dealers around anymore, nor service centers. If Zenith can't get computers fixed for their customers, there's going to be big problems, and Bull will not be able to help that image one bit.

* And you would not believe the **crap on the Z515 \$600 4MB RAM board** I mentioned last month! Seems that nobody at Heath can remember about the memory card that was placed on an unannounced sale that nobody has any memory about! Just after my newsletter went out broadcasting the price, they jumped it up to \$1495! The \$600 was a special sale that **nobody knew about!** It was not advertised, publicized, or anything. When folks would call, they were routed all over the place there, and even then, at times nobody knew nothing about it. If you were lucky to get the right person, you got a board for \$600.

How anxious are they to get rid of these things? After ZDS telling the dealers and customers there were no more Z515 4MB RAM boards available or ever to be available? How anxious to get rid of 700 of them which they have in stock for an "obsolete" machine? They may be reducing the price again, but it will not be to the \$600 level. They are afraid they may get in resale channels. Bet you any money they'll get liquidated outside H/Z channels for a few hundred dollars each and by the time you learn about it they will be gone. Nice guys.

* I understand that **Paul F. Herman was injured in an automobile accident** in late March. He has been in the hospital for a few weeks. Paul has been very busy providing the needed support for H/Z100 owners that Heath/ZDS has long since forgotten. We wish Paul a speedy recovery and hope all goes well with him and that he gets back behind his desk to resume his work. Our prayers are with him.

* If you have **problems with some software properly running with the Sota accelerator boards**, try using the /NO EMS switch when setting up the software. It seems to solve some problems with H/Z computers.

* I understand the **Zenith EISA computer** that was supposed to be the first available according to multiple press releases is still not released yet. In any event, others have beat them as I've already seen advertisements for other EISA systems. The Zenith

machine should be shipping shortly, but we'll wait and see since I've heard that late last year already.

* It was a long, long time coming, and long, long overdue, but **Ed Esber has resigned** as Ashton-Tate chairman, CEO, and president. Bill Lyons, a former IBM executive will replace him. Obviously with all the problems Ashton-Tate has had with their dBASE IV bug prone release, something had to give. With Ashton-Tate's growth stunted in several areas, bad press, dwindling customer base being lost to competition, Esber's exit is welcomed.

* Be on the lookout for things happening with Heath Company and Zenith Data Systems. It's all I can say right now.

* **Control Room by Ashton-Tate** may be a program worth looking into. It is supposed to be a collection of software such as disk recovery, disk cache (using EMS or extended memory), keyboard macros, virus detection, hardware analyzers and more, all under the control of a series of flashy panels that let you select which ones you want to use. You can control key repeat rate, loudness of keyboard beeps, control whether caps lock, scroll lock, and num lock are on or off when you start the machine (a blessing in itself!).

There is an option that records DOS commands so you can recall and edit them without retyping them. A screen blanking utility is also included and you can control the number of DOS lines that are displayed on your EGA or VGA display. You can also redirect printer output to a disk file.

Control Room can also explain how your PC relates to your hard disk and how they all fit together, and how a better interleave on the HD may help, and if a math coprocessor will help you.

Documentation is mainly a review, the program relies more on context sensitive help screens for each panel and a lookup command listing info on computer subjects and DOS commands (accessible as a TSR). Requires 384K free RAM, with memory-resident utilities taking from 7K-30K. If you have PC Tools, Norton, Mace, and other things like that you may not be able to justify the \$129 list price, otherwise it may be a good buy.

* Soon your Zenith SupersPorts may have a **tiny 23ms 20mb removable hard drive**. The 7-ounce hard drive offers 20 megs of removable storage for PCs and laptops. The DiscTec RHD 20 by Disk Technologies, includes a docking bracket with the same dimensions as a standard 3.5" microfloppy laptop drive so some users will be able to replace their floppy with this unit.

The DiscTec drive contains both media and controller in its small unit, but requires IDE host support. Zenith SupersPorts have been tested with this unit among other units such as all Compaq and newer Toshiba. List price is \$695. Contact Disk Technologies Corp/ 917 N Pennsylvania Ave/ Winter Park, FL 32789/ (407) 645-0001.

* An **interim release dated 1/19/90 is now available for WordPerfect v5.1** which fixes the incompatibilities with expanded memory managers and the font conversion problems that some printers had when converting WordPerfect 5.0 documents to 5.1. Also adds support for Quattro spreadsheets. Border options, a feature that lets you change the width, shading and spacing for graphic boxes and table borders has been added to the Other Format Menu. In addition, WordPerfect Character set 10 now includes 47 additional characters (102-149).

Available for a \$10 shipping charge in US by calling WordPerfect Corporation's Orders Department at (800) 321-4566 or writing WordPerfect Corp/ WordPerfect 5.1 Interim Release/ 1555 N Technology Way/ Orem, UT 84057. In Canada call (801) 225-5000. In Canada \$32 for second-day express service and \$25 for US insured mail.

* Had fun the other day trying to **interface a serial H25 H/Z printer to a PC compatible**. As you may know, serial ports used to be standard in the "old" 8-bit systems by Heath and Zenith. Serial printers were the big thing when this whole business started out. Since the PC's, parallel is the way to go. Don't worry about anything, just plug it in and go. Now serial printers can be a nightmare to interface to PCs.

If you recall, the serial ports on a PC/XT/AT compatible are **not printer ports, but modem ports!** Big difference in that some lines are swapped. 2-3 are swapped, 4-5 and swapped and 6-20 are swapped. So if you want to drive a serial printer from a PC/XT/AT serial port, you have to go through a **null modem cable** first, which swaps those lines around again, thus you end up with a "printer port". (In the 8-bit days, you had to use a null modem cable to attach a modem to your computer (unless the computer had a modem port in which they were already swapped already - H8, H/Z89 are two examples).

Had an interesting thing happen. We tried a null modem cable and nothing happened. After quite a bit of fooling around, we swapped 2-3 back again (which definitely should not work as the transmit and receive are now backwards), and walla, the printer took off! I can't explain this phenomena, but it made the printer work. Any other serial printer I have tried before required the 2-3 swap. But in this case, if we totally removed the null modem cable to eliminate having to swap 2-3 again, the printer would not work again. Can't 'splan it, but that's what I have found. If anyone has an H25 interfaced to a PC compatible serial port, write in and let me know what you discovered.

Our final pin configuration to make it work looked like this:

DB9 to computer	DB25 to printer
1	1
2	2
3	3
4	5
5	6
6	20
7	7

We selected 8-bit word, no parity and ETC/ATK handshaking so we would not have to worry about hardware handshaking.

* Dan Jerome sends in some comments: **UD.DVD** - Kirk Thompson now has a version of this printer driver for use with HDOS 3.0/HDOS 3.02, etc. This version is quite similar to the HDOS 2.0 version that many of us H89 users enjoyed using so much in the early days. The program was written from scratch by Richard Streeter. There are different styles of this driver, depending upon which processor is used in your machine. For example, there is one version for the Z80, and another version for the 8080, etc.

Attempts were made to locate both Jim Tiexeria and Charles Layman, in attempt to coordinate this effort, but were unsuccessful.

PC TOOLS V5.5 - I found a minor bug not listed in the manuals. If you exit the program while it is logged onto drive A:, B:, or C:, the next time the program is called up it will burp and display an ominous error message: "THE PROGRAM IS NOT READY"

Then it will give you the standard instructions to "ignore," "retry," or "abort."

If you hit "retry," note that one of the drives lights up. This is a dead giveaway as to the nature of the problem.

To fix the problem, type a CTRL-C and the message goes away and the program comes up as usual. At this time, go to the "OPTIONS" pull down menu and hit "Save Configuration." This

procedure will put you back on line. (Credit to John Toscano who solved the problem)

ASK HANK

This column is to provide technical information to our readers. If you have a question or problem feel free to write in and we will try to provide the correct answer. If any readers don't agree with the answer I have [hey, I'm far from perfect!], send in your views and we will review and print them as needed. This column will be printed as space provides.

QUESTION: I have an Eazy PC and I would like to add an external 5 1/4" floppy drive and a Smartclock. Can you help me?

ANSWER: Zenith made two strange computers to keep cost down which make it very difficult and/or expensive to add a floppy drive to. One is the Z248LP computer and the other is the Eazy PC computer. The Z248LP requires additional Zenith parts, called the ZCA-2300-5. It is a card which requires a slot, a cabinet with a 360K floppy and a power adapter. Retails for \$449.

There is no easy way to add an external drive to the Eazy PC computer. It is very involved. System must be taken apart, special cables made up and modified, and an external power supply, cabinet is required. I've never done it, but I believe the instructions are on CompuServe in the Zenith forum.

There may be another way which is easier, but more expensive. It would involve the addition of an external PC/Parallel port chassis with drive, but this would be well over \$400 making it not practical.

As for as the Smartclock, this is possible and does involve taking the computer apart. If you've never opened a computer before to work on it, this may be too scary for you. It involves removing the screws on the bottom of the computer which secure the chassis bottom to the computer. The bottom is swung down to expose the logic board and drive areas which are shielded. The screws labeled "A" that secure the subshield to the main board shield must be removed. The subshield is only on hard drive models. Then six more screws with captive lockwashers labeled "B" that secure the logic board shield are removed. Video cable is unplugged along with ground lug from logic board and board shield. Pivot shield upward and pop out of the way. Identify the monitor ROM and remove. Insert Smartwatch in it's place, identifying pin 1, and align pins of monitor ROM and plug in Smartwatch. Reverse disassembly procedures.

On any computers, if you have DOS 3.21 use RTCLOCK to set the clock. DOS 3.3 plus does it automatically with TIME and DATE command. If you use DOS below 3.21 you must use the utility software that came with Smartclock, but then you must, in this case, have it converted to 3.5" format.

I do have pages available I can Xerox off and send out (\$1 to cover costs) to any who wish to have this. It has diagrams that show locations of where Smartclock goes, and where the "A" "B" screws are, etc.

QUESTION: I learn from your catalog that the cache of the Sota 386i is expandable to 64K. My random-walk calculations make almost constant use of several arrays. If I install an 80387 co-processor (making possible the use of four-byte reals instead of Turbo Pascal's standard six-byte reals) each of the six largest of these arrays occupies 5120 bytes of memory. Otherwise, these six arrays occupy a total of more than 46K. Other arrays add up to about 11K.

Unless the co-processor is significantly less costly than expanding the cache to 64K with components which are fast

enough to allow the 80386SX to run at top speed, it seems to me that the 64K cache would be a more effective alternative for me.

Please let me know whether my thinking about this possibility is correct, and, if it is, what the price of the 386i with 64K cache would be.

ANSWER: There will be a report in this newsletter hopefully next month on experiences with the Sota 386i card and cache RAM. However, from what I presently gather from speaking to Ron Pannatoni, the one working on the report, and from the SOTA folks, it is not worth trying to install the extra 64K RAM as it only will give a 2-3% increase in CACHE performance. Besides, when Ron was working with the board, he ran into all sorts of problems trying to use the extra RAM. First off he found it is very difficult RAM to obtain. Then after the installation he had numerous problems, including hard drive problems and computer lockup within 5-10 minutes with the 64K cache installed.

If you have the extra bucks to spend, I'd definitely say the co-processor would be the way to go. The 16Mhz SX co-processor sells discount for about \$325, but the performance you will obtain if your program works with coprocessors will be beneficial, and you will not have the problems to deal with on expanding the cache.

QUESTION: The SUPERSET presently in my H89 indicates date/time on the right hand side of the 25th line. This SUPERSET manual mentions that if a SUPERCLOCK is installed which has a battery, the need for resetting of the date/time each time when the H89 is powered up is done away with. I did not find any battery with the SUPERCLOCK received nor the instruction for installation refers to it.

It is possible that the battery item is discontinued or that my imagination is running wild. In either case, I'll appreciate to receive info as to which type of battery I should purchase together with the instructions and/or schematic as to where to connect the battery."

ANSWER: Relax, everything is fine. The Superclock is similar to the Smartclocks that are used in PC computers. Inside the Superclock module is a sealed lithium battery which should provide between 5 and 10 years of life. You need do nothing. Simply install it, set the time and date, and everything will be automatic from that point on.

QUESTION: I have an 8Mhz Z248 with 640K base memory and 1 meg extended with a Zenith 405A memory board. As my next upgrade I want to add some expanded RAM (EMM 4.0). Several of the programs I use could make use of it. I'm leaning toward a Boca board, primarily I guess because Joseph Katz wrote that he had it in his Z248 and it worked OK. Could it (or some other 4.0 expanded memory board that you may know of) use 150ns chips? I'd like to use the 2 megabytes of 256 x 1 150ns memory chips that I have left over from an old PCA Technology multi-function board that quit working in my old Tandy 1000.

ANSWER: No way. I plan to do an article real soon now about memory chip speed and computers, but for now I'll give you a brief answer. The 8Mhz Z248 requires at least 120ns chips, which even may be marginal. The recommended chip for that machine is 100ns DRAMs. Try to go to 150's and you'll introduce wait states which will slow your system down. At the price of chips, it's not worth it. As for memory boards, we have been selling the Everex RAM 3000 deluxe which will provide backfill RAM to 640K, extended and expanded RAM. It sells for \$129, and our part number is EVATRD.

QUESTION: I'd like to use my computers with my printers and use some mechanical switches I have from TAB Sales. But I'm afraid since the HP Laserjet II manual says mechanical switches

might cause damage. Could I use the mechanical switches if I only change switch positions when the power was turned off?

ANSWER: That's a good question and I can only tell you my experiences. I have an AB switch box with one going to a HP Laserjet plus and the other to a Diablo 630. I do lots of switching, but always with the printers power turned off and I have never had a problem. On the other hand, I have had one printer in here with major damage which looked like line current went through the mother board. In this case, however, the customer physically plugged the parallel port cord into the printer with the power on.

QUESTION: The **SOTA 286i accelerator board** purchased on March 13 works very well with most of my software. However, Lotus Manuscript will only run with the board in the 8088 mode. Since I do a large quantity of scientific word processing the speed available with a 286 is almost a necessity.

ANSWER: John, I checked with SOTA, and they said you should use the /NO EMS statement in your CONFIG.SYS file.

PEEKING & POKING

CIS - GO ZENITH PROBLEMS

I really didn't want to have to get into this subject, but at this time I feel it is imperative to do so. This editorial in part was written late last year and I decided not to print it without good reason. I have been provoked by injustice and snobbishness to the point that I will not keep silent about it.

The whole idea of bulletin boards, I feel, is support, cooperation, exchange of information and data, and building a comradeship between users. Most boards do very well in this respect, but I have a major problem with CIS, especially with GO ZENITH on CIS.

I hardly get on the GO ZENITH area of CIS anymore, mainly because I don't have the time, and I don't care for the attitude on GO ZENITH. CIS is a very powerful board and it has a lot going for it. The ZENITH forum in CompuServe appears to be nice on the outside, but their general attitude is "you can have what you want, but pay me first, and don't you dare share it with anybody".

Since I don't get on CIS very often (I visit dozens of other technical based BBs every month, including the Zenith service tech bulletin board and the HUG BB) customers of mine and H-SCOOP subscribers often send me files. I have found some good stuff on CIS, but I have also found lots of worthless junk. CIS is the slowest board I have ever been on and their file transfer is the slowest I have ever experienced. Our QD.BB will transfer files at the same CIS baud rate at least twice as fast. So what's the idea? To offer support, or be continually holding out your hand for the almighty buck?

Most boards give you files, and some have a requirement of so many downloads for so many uploads. CIS stops the clock (not the long distance phone bills) when you upload files but you do not get credit, say free download time. So what if the clock is stopped. What are you going to get out of it?

So many of the files (and many important Zenith related files) I have had sent to me or have seen specifically state that they are for CIS only and they cannot be placed on another BB, given away, sold, etc. That for one, leaves out support for any unfortunate individual who does not have a modem, does not have a local phone line they can access so must pay CIS charges plus long distance phone charges, and many others.

Since one cannot make the disks available or place the files on another BB, these folks are screwed.

I could understand if there was much development time spent on some of the "proprietary files" and CIS needed to recoup their investment. This has not been the case on the files I have examined that stated they are not to be given out in any way by anyone else. **Most have been direct uploads from ZDS sources**, and as far as I can see, since they are copyright by Zenith, if they are on the board in the first place (probably illegally) then they should be allowed to be shared and be placed on other boards. Zenith owns the copyright, **not CIS and not Joe Katz!!!** Most of the files have come from the Zenith tech bulletin board, the HUG bulletin board, or the ZDS Service Technical bulletin board. Many of the copyright ones are from the service board, and Joe is not a subscriber (I am and at around \$1,000/year!). Zenith has those files for support of their products. What in the world good would those files do if they were hidden away where nobody could get them as Joe wants?

I was talking to a ZDS attorney the other day and I learned that ZDS is up in arms over this whole CIS business and has been investigating it and Joe's antics for some time. I learned that Joe has absolutely no business having most of those Zenith files on CIS in the first place and he has absolutely no business tacking on his "notice" that CIS owns the files. Most of the files, if examined, have a ZDS copyright right in them. So how does Joe get off placing them on GO ZENITH and then adding "his" don't place these files on other boards or give them out notice. My attitude is ignore Joe's notices. If he has them on CIS, then I see no problem with sharing them!

Just before press time, I learned, to my total astonishment, that Joe and CIS had the unbelievable audacity to place Microsoft's Zenith's MS-DOS 3.3 (looks like all the files minus the BIOS and COMMAND.COM) on the GO ZENITH forum of CIS. As usual, the don't copy, give out, place on other bulletin board disclaimer is there. Well Joe, how come you can violate copyright code and then tell everyone else not to do it? The files illegally placed on CIS are copyright by Microsoft and by Zenith, not by Joe Katz or CompuServe thank you! Those files have no business being on CompuServe. Here's a sample of what I saw when I visited GO ZENITH on May 16th on the advice of a hot tip about DOS 3.3 being up there:

"Newest DOS 3.3 Plus utilities in Library 1
The most recent versions of all the MS-DOS 3.3 Plus utility programs (comprising Version 3.30.14) are in the files DOS33A.ZIP, DOS33B.ZIP, and DOS33C.ZIP in Library 1. See DOS33.DIR in Library 1 for contents of those three distribution files."

So I went to New Files libraries and did a BROWSE and here's what I saw:

"[70007,1401]
DOS33A.ZIP/binary 12-May-90 162808 Accesses: 32
Title : ZDS MS-DOS 3.3 Plus utilities: Disk 1 (Part 1)
Keywords: ZDS DOS MSDOS 3.3 PLUS UTILITIES UPDATES

"Zenith Data Systems' MS-DOS 3.3 Plus utilities (Version 3.30.14), complete in three files:

"DOS33A.ZIP Disk 1 (Part 1) <--
DOS33B.ZIP Disk 1 (Part 2)
DOS33C.ZIP Disk 2

"For the contents of each part, including filenames, dates, and times, see:

"DOS33.DIR

"From Zenith Data Systems. Not for redistribution. UPL Bill Stuebe [ZDS]."

So I chose DOWNLOAD a file option for DOS33.DIR, and here's what I saw:

"FILE: MS330.DIR

Not for redistribution.

"These three ZIP archive files in the Zenith Forum libraries contain the utility programs for Version 3.30.14 of MS-DOS 3.3 Plus from Zenith Data Systems:

"MS330A.ZIP Disk 1, Part 1 (A-J)

MS330B.ZIP Disk 1, Part 2 (K-Z)

MS330C.ZIP Disk 2

Although together these files are the utilities in the Version 3.30.14 distribution of Zenith Data Systems' MS-DOS 3.3 Plus, each utility program has its own version sequence. You may check Neither the ZIP archive files nor any of their contents may be redistributed, on bulletin board systems or by any other means, even if no fee is charged."

So there we go again, the don't violate my (Joe's) Copyright for stuff he has no right to in the first place bit.

I'll list a few lines of what the file contained, and you can easily see these comprise DOS 3.3:

"CONTENTS OF FILE: MS330A.ZIP:

Filename	Date	Time
NOTICE		
ANSI.SYS	02-02-88	00:00
APPEND.EXE	02-02-88	00:00
APPLY.COM	04-24-89	11:14
ASSIGN.COM	02-02-88	00:00"

Need I say more? The idea started, I hear, as some files change and have bugs and upgrades are made available. **Some** files. This is a good idea, as a handful are on my bulletin board, the HUG, the Zenith tech, and others. A good way for folks to get files that are not bug ridden. But to place almost every file comprising DOS there all at once, even though many never had bugs, is another story. And the ones on the boards that have been placed there to solve bug problems, neither Joe Katz nor CIS have any control over. Give them away, share them, place them on other boards, and then leave CIS a message that Henry sent you!

[A day before press time, I heard that CIS was forced to take those files off. I understand they did, and placed them back on again under another name (I have not verified this) from another person who had uploaded them for CIS. When I checked on the 23rd of May, they were not there, so I guess they got the message, and ZDS is not through with them yet.]

One thing I will say, is our QDBBS will never have a policy like that. We have started placing more files on our board (sorry, you can't see them yet) and I have megabytes more to sift through. We will soon be charging for accessing the files on a yearly rate, not a time rate. We are here to make a living supporting H/Z computers. However, any files, especially files to correct bugs, that you get off of our board are to do with whatever you want. Give them out, share them, copy them whatever. We will eventually compile a large H/Z support file section and when that happens the only restriction that I will have is not to place **my** support files on other boards since I don't want somebody simply to copy the files on a board and make money off of hundreds of hours I will have spent putting it all together. Sound fair?

We are not going to be operating our board to make lots of bucks. I am planning real soon now to add about \$5,000 worth of equipment to the board in the area of a new and faster computer with a 300mb ESDI drive. I also plan to be adding more phone lines in the near future. My software is already set up to support up to 16 callers so I'm all set in that department.

And speaking of boards, I spoke to Bob Ellerton recently (it was very nice hearing from Bob again - many of you old-timers remember him as being HUG) and also Jim and the female robot over there and they have some very exciting plans for their board. They are basically using the same software I am, eSOFT's TBBS which is a very versatile, fast and powerful system. I understand they now have 8 lines coming in on a 386 computer, soon to be expanded to 16 lines, and then to 32 as the need presents itself. Bob Ellerton told me that their board will become the central hub for all Zenith support, tech support, communications, sales, HUG support, file uploading and downloading and more. It will be **the** place to be, and it is being done with Zenith's blessings and cooperation. CIS, keep in mind, is not Zenith, but is totally independent.

HUG is constantly working to keep their board up to date and adding new features - something TBBS is good at. That is the place to be - and it's free! I think the least you can all do is if you are not a member of HUG (requirement to get on their board) to join up real soon now if for no other reason, to offer them support and to get on their board! HUG is definitely a nice board with no access fees. All they ask is to be a member of HUG for most things, although anybody can log in for seeing part of the board.

Although I can't go into it all now, some exciting changes will be taking place at what is presently known as Heath User Group. Bob did tell me all this Zenith liquidation crap is being stopped. All merchandise they want to liquidate will be done through their board, with special consideration being given to dealers who were in the past left in the dark. So keep an eye on the HUG bulletin board. If you don't have the number, it's (616) 982-3956.

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